




FLEXIBLE, PART-TIME, ONLINE SHORT COURSES IN SUSTAINABLE AQUACULTURE FROM THE UNIVERSITY OF ST ANDREWS



## The Fish Site

 [Breeding & genetics](#) [Farm management](#) [Health & welfare](#) [Nutrition](#) [Enviro](#)   [All sections](#)

# A new means to measure broodstock

TECHNOLOGY & EQUIPMENT

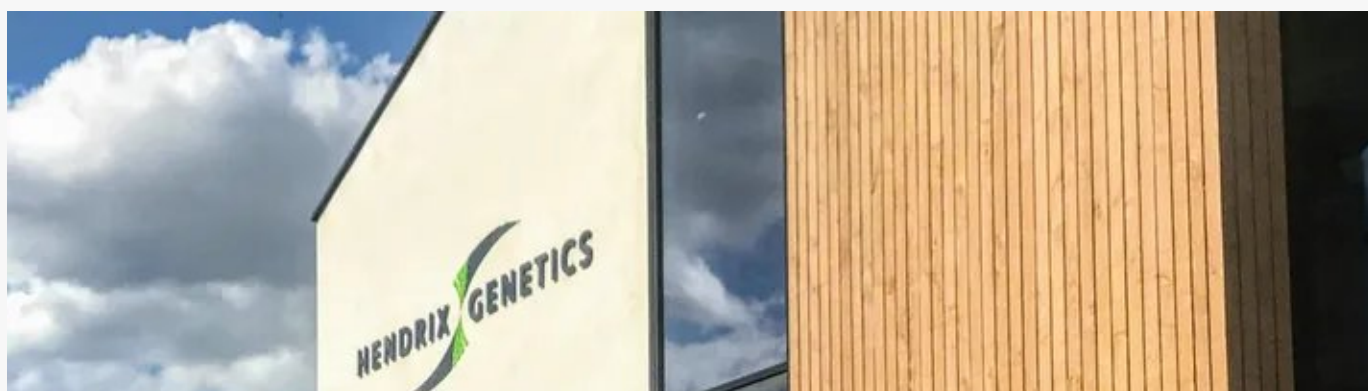
BREEDING & GENETICS

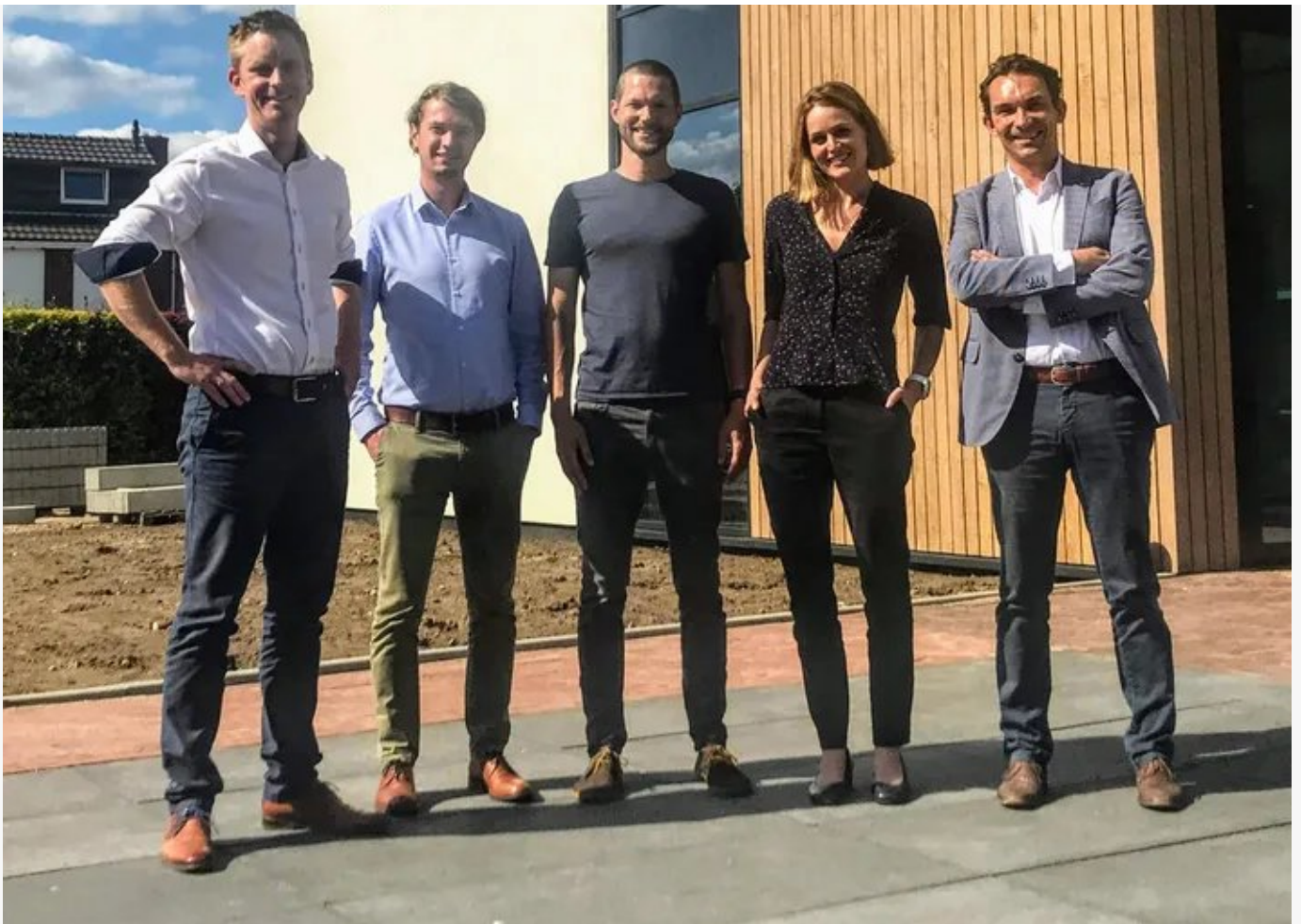


by The Fish Site  
28 August 2019, at 11:22am

A project to develop underwater vision technology for measuring aquaculture broodstock has been launched, following the signing of an agreement between Hendrix Genetics and Plant & Food Research.

In order to accurately select the right animal as a breeding parent, geneticists need to track key characteristics, including body weight and morphometrics (size and shape). However, in aquaculture, data collection on individual animals offers significant challenges. Conventional methods, such as weighing scales, are labour intensive and can compromise animal welfare. Underwater vision technology offers a solution to accurately and efficiently identify, measure, and select breeding stock.





Hendrix Genetics has signed a memorandum of understanding with PLant & Food Research to develop underwater vision technology for measuring aquaculture broodstock

[Plant & Food Research](#) has developed new image-based processes to measure a range of traits in fish automatically. The high throughput system uses species-specific distinguishing features, such as visual patterning akin to a fingerprint, to identify individuals and track their growth over time. This information can be used to identify individuals with the right characteristics to offer potential as parents in aquaculture breeding programs.

The development project will assess the viability of this technology in a commercial environment by performing a number of test cases in trout.

Dr Robbert Blonk, R&D director aquaculture of [Hendrix Genetics](#) states: "Accurate data collection and tracking individuals in aquaculture is key. We look forward to working with Plant & Food Research to implement their state-of-the-art technology to further advance our breeding programs."

Dr Maren Wellenreuther, science group leader seafood production for Plant & Food Research added, "Underwater vision technology has the potential for a huge leap in breeding accuracy and further genetic improvement. We look forward to continuing the development of this

technology and see it adopted by industry partners like Hendrix Genetics.”

With the combined expertise in breeding, genetics, and technology, the partners will further develop the techniques that have the potential to improve frequency and accuracy in trait measurements in way with enhanced animal welfare outcomes. This project will increase accuracy of selection in breeding, which translates to healthy, efficient products for the entire aquaculture industry.



## The Fish Site

More from this author

• TECHNOLOGY & EQUIPMENT

• BREEDING & GENETICS

### More articles on salmonids



23 Oct 2020

#### Can CRISPR edit sea lice out of salmon aquaculture?

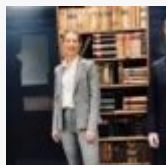
A new project will use the gene editing tool CRISPR-Cas9 to assess why Pacific salmon species are less susceptible to se...



22 Oct 2020

#### A global alternative to net pen aquaculture

FishGlobe, a novel fish farm design that is also “the largest construction ever made in polyethylene”, is showing early ...



21 Oct 2020

#### Bringing investors to aquaculture

Plans to attract more investors to the aquaculture sector have been announced by Hatch Blue, the aquaculture venture com...

[VIEW MORE >](#)



#### OUR SPONSORS



#### PARTNERS

[Evonik](#), [Halamid](#), [Adisseo](#)

## Related news & articles



26 Oct 2020

### The Singaporean firm that aims to transform Asia's crayfish sector

Desmond Chow, the founder of Singapore Crawfish, is so convinced that crayfish aquaculture is ripe for investment that he's spent the past two years, and considerable amounts of his own capital, developing a range of cra...



22 Oct 2020

### A digital upgrade for Africa's leading tilapia producer

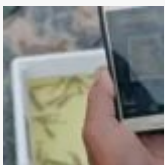
aquaManager, a software platform that is designed to improve the running of aquaculture facilities, is now live at Yalelo's tilapia farms in Zambia and Uganda.



22 Oct 2020

### A global alternative to net pen aquaculture

FishGlobe, a novel fish farm design that is also "the largest construction ever made in polyethylene", is showing early signs of promise.



21 Oct 2020

### Vietnamese shrimp farmers flock to new app

An app that lets shrimp farmers to track shrimp growth from stocking through harvest, purely by taking pictures on their smartphone, is generating very positive reviews from farmers in Vietnam.

MORE >



LEADERSHIP, PART-TIME, ONLINE SHORT  
COURSES IN SUSTAINABLE AQUACULTURE  
FROM THE UNIVERSITY OF ST ANDREWS



[About us](#)

[Subscribe to our newsletter](#)

[Contact our team](#)

[Advertise with us](#)

[More from Hatch](#) 



**HATCH**

[Terms & conditions](#)   [Privacy & cookie policy](#)

©2020 - Hatch Accelerator Holding Limited, 7/8 Liberty Street, Cork, T12T85H, Ireland

Hatch Accelerator Holding Ltd, 7/8 Liberty St, Cork, T12 T85H, Ireland; CRO 617308

No part of this site may be reproduced without permission.